DB Name	Query	Hit Count	Set Name
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	(enrich$ or isolat$ or prepar$) (stem or precursor or progenitor) cell$	122	L7
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	l3 and (enrich$ or isolat$ or prepar$)	236	L6
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	l4 and (enrich$ or isolat$ or prepar$)	142	L5
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	l3 and (liver or muscle)	142	L4
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	(stem or precursor or progenitor) same (nonadherent$ or non-adherent$)	254	L3
USPT,PGPB,JPAB,EPAB,DWPI,TDBD	(stem or precursor or progenitor) and (nonadherent$ or non-adherent$)	1463	L2
USPT	6241984.pn.	1	L1

Attachment to FOAM paper #9

WEST

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Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences

Your wildcard search against 2000 terms has yielded the results below

Search for additional matches among the next 2000 terms

Search Results -

Term	Documents
ENRICH$	0
ENRICH.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	13123
ENRICHABILITY.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHABLE.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	12
ENRICHABLY.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHASHCHEN.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	2
ENRICHBLEMS.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHCALCIUM.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
ENRICHCD.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	2
ENRICHCHN.DWPI,TDBD,EPAB,JPAB,USPT,PGPB.	1
. . . . .	
CELL$(CELLOSOLVES-M-11).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	pickup term
((ENRICH$ OR ISOLAT$ OR PREPAR$) (STEM OR PRECURSOR OR PROGENITOR) CELL$).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	122

There are more results than shown above. Click here to view the entire set.

Database:
- US Patents Full-Text Database
- US Pre-Grant Publication Full-Text Database
- JPO Abstracts Database
- EPO Abstracts Database
- Derwent World Patents Index
- IBM Technical Disclosure Bulletins

Refine Search: (enrich$ or isolat$ or prepar$) (stem or precursor or progenitor) cell$ Clear

Search History

Today's Date: 7/11/2001

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### Status: Path 1 of [Dialog Information Services via Modem]

### Status: Initializing TCP/IP using (UseTelnetProto 1 ServiceID pto-dialog)
Trying 3106900061...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ******** HHHHHHHH SSSSSSSS?
### Status: Signing onto Dialog
 ********
ENTER PASSWORD:
 ******** HHHHHHHH SSSSSSSS? ********
Welcome to DIALOG
### Status: Connected


Dialog level 01.06.26D

Last logoff:  30jun01 13:17:45
Logon file001 11jul01 09:17:58
           *** ANNOUNCEMENT ***
                  ***
--Important Notice to Freelance Authors--
See HELP FREELANCE for more information
                  ***
NEW FILE RELEASED
***EIU Business Magazines (File 622)
***IBISWorld Market Research (File 753)
***Investext PDF Index (File 745)
***Daily and Sunday Telegraph (London) Papers (File 756)
***The Mirror Group Publications (United Kingdom) (File 757)

UPDATING RESUMED
***Delphes European Business (File 481)
***Books In Print (File 470)
                           ***
RELOADED
***Kompass Middle East/Africa/Mediterranean (File 585)
***Kompass Asia/Pacific (File 592)
***Kompass Central/Eastern Europe (File 593)
***Kompass Canada (File 594)

New pricing structure for Pharmaprojects (Files 128/928) from
April 1, 2001. Check Help News128 or Help News928 for further
information.

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   broad spectrum of news wires.

     >>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
     >>>    of new databases, price changes, etc.      <<<
                  ****
KWIC is set to 50.
HILIGHT set on as '*'

File   1:ERIC  1966-2001/Jul 09
       (c) format only 2001 The Dialog Corporation

      Set  Items  Description
      ---  -----  -----------
?b 71, 5, 155, 434
       11jul01 09:18:12 User259980 Session D134.1
            $0.25    0.071 DialUnits File1
     $0.25  Estimated cost File1
     $0.01  TYMNET
```

```
     $0.26  Estimated cost this search
     $0.26  Estimated total session cost   0.071 DialUnits


SYSTEM:OS  - DIALOG OneSearch
  File  71:ELSEVIER BIOBASE  1994-2001/Jul W2
        (c) 2001  Elsevier Science B.V.
  File   5:Biosis Previews(R)  1969-2001/Jul W1
        (c) 2001 BIOSIS
  File 155:MEDLINE(R)  1966-2001/Jul W3
        (c) format only 2001 Dialog Corporation
*File 155: This file has been reloaded. Accession numbers have changed.
 Please see Help News155 for further details.
  File 434:SciSearch(R) Cited Ref Sci  1974-1989/Dec
        (c) 1998 Inst for Sci Info

      Set  Items  Description
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?s stem(w)cell?
Processing
          235081  STEM
         5938492  CELL?
      S1  101833  STEM(W)CELL?
?s s1(s) (isolat? or prepar? or enrich)
          101833  S1
         1801941  ISOLAT?
          847227  PREPAR?
            2868  ENRICH
      S2    6556  S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
?s s2 and (non-adherent or nonadherent)
            6556  S2
              64  NON-ADHERENT
            5456  NONADHERENT
      S3      50  S2 AND (NON-ADHERENT OR NONADHERENT)
?s s3 and liver
              50  S3
         1062254  LIVER
      S4       5  S3 AND LIVER
?rd
...completed examining records
      S5       3  RD (unique items)
?t/9/all

 5/9/1     (Item 1 from file: 71)
DIALOG(R)File  71:ELSEVIER BIOBASE
(c) 2001  Elsevier Science B.V. All rts. reserv.

01351979        2000026887
Expression of VEGFR-2 and AC133 by circulating human CD34sup + cells
 identifies a population of functional endothelial precursors
Peichev M.; Naiyer A.J.; Pereira D.; Zhu Z.; Lane W.J.; Williams M.; Oz
M.C.; Hicklin D.J.; Witte L.; Moore M.A.S.; Rafii S.
ADDRESS: S. Rafii, Weill Med. Coll. of Cornell Univ., Hematology-Oncology
         Division, 1300 York Ave, New York, NY 10021, United States
EMAIL: srafii@mail.med.cornell.edu
Journal: Blood, 95/3 (952-958), 2000, United States
PUBLICATION DATE: February 1, 2000
CODEN: BLOOA
ISSN: 0006-4971
DOCUMENT TYPE: Article
LANGUAGES: English       SUMMARY LANGUAGES: English
NO. OF REFERENCES: 29

Emerging data suggest that a subset of circulating human CD34sup + cells
have phenotypic features of endothelial cells. Whether these cells are
sloughed mature endothelial cells or functional circulating endothelial
precursors (CEPs) is not known. Using monoclonal antibodies (MoAbs) to the
extracellular domain of the human vascular endothelial receptor-2
(VEGFR-2), we have shown that 1.2 +/- 0.3% of CD34sup + cells *isolated*
from fetal *liver* (FL), 2.+/- 0.5% from mobilized peripheral blood, and
1.4 +/- 0.5% from cord blood were VEGFR-2sup +. In addition, most CD34sup
```

+VEGFR-2sup + cells express hematopoietic *stem* *cell* marker AC133. Because mature endothelial cells do not express AC133, coexpression of VEG FR-2 and AC133 on CD34sup + cells phenotypically identifies a unique population of CEPs. CD34sup +VEGFR-2sup + cells express endothelial-specific markers, including VE-cadherin and E-selectin. Also, virtually all CD34sup +VEGFR-2sup + cells express the chemokine receptor CXCR4 and migrate in response to stromal-derived factor (SDF)-1 or VEGF. To quantitate the plating efficiency of CD34sup + cells that give rise to endothelial colonies, CD34sup + cells derived from FL were incubated with VEGF and fibroblast growth factor (FGF)-2. Subsequent *isolation* and plating of *nonadherent* FL-derived VEGFR-2sup + cells with VEGF and FGF-2 resulted in differentiation of AC133sup + VEGFR-2sup + cells into adherent AC133sup -VEGFR-2sup +Ac- LDLsup + (acetylated low-density lipoprotein) colonies (plating efficiency of 3%). In an in vivo human model, we have found that the neointima formed on the surface of left ventricular assist devices is colonized with AC133sup +VEGFR-2sup + cells. These data suggest that circulating CD34sup + cells expressing VEGFR-2 and AC133 constitute a phenotypically and functionally distinct population of circulating endothelial cells that may play a role in neo-angiogenesis.

CLASSIFICATION CODE AND DESCRIPTION:
89.2.4 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Growth Factors and Inhibitors
89.5.1.7 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Epithelial and endothelial cells
89.5.1.2 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Blood cells
86.13.1.1 - IMMUNOLOGY AND INFECTIOUS DISEASES / TECHNOLOGY / Techniques / Monoclonal antibodies

5/9/2 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12410903 BIOSIS NO.: 200000164405
Expression of VEGFR-2 and AC133 by circulating human CD34+ cells identifies a population of functional endothelial precursors.
AUTHOR: Peichev Mario; Naiyer Afzal J; Pereira Daniel; Zhu Zhenping; Lane William J; Williams Mathew; Oz Mehmet C; Hicklin Daniel J; Witte Larry; Moore Malcolm AS; Rafii Shahin(a)
AUTHOR ADDRESS: (a)Hematology-Oncology Division, Weill Medical College of Cornell University, 1300 York Ave, Room C-606, New York, NY, 10021**USA
JOURNAL: Blood. 95 (3):p952-958 Feb. 1, 2000
ISSN: 0006-4971
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: Emerging data suggest that a subset of circulating human CD34+ cells have phenotypic features of endothelial cells. Whether these cells are sloughed mature endothelial cells or functional circulating endothelial precursors (CEPs) is not known. Using monoclonal antibodies (MoAbs) to the extracellular domain of the human vascular endothelial receptor-2 (VEGFR-2), we have shown that 1.2 +- 0.3% of CD34+ cells isolated from fetal *liver* (FL), 2 +- 0.5% from mobilized peripheral blood, and 1.4 +- 0.5% from cord blood were VEGFR-2+. In addition, most CD34+VEGFR-2+ cells express hematopoietic *stem* *cell* marker AC133. Because mature endothelial cells do not express AC133, coexpression of VEGFR-2 and AC133 on CD34+ cells phenotypically identifies a unique population of CEPs. CD34+VEGFR-2+ cells express endothelial-specific markers, including VE-cadherin and E-selectin. Also, virtually all CD34+VEGFR-2+ cells express the chemokine receptor CXCR4 and migrate in response to stromal-derived factor (SDF)-1 or VEGF. To quantitate the plating efficiency of CD34+ cells that give rise to endothelial colonies, CD34+ cells derived from FL were incubated with VEGF and fibroblast growth factor (FGF)-2. Subsequent *isolation* and plating of *nonadherent* FL-derived VEGFR-2+ cells with VEGF and FGF-2 resulted in differentiation of AC133+ VEGFR-2+ cells into adherent AC133-VEGFR-2+Ac-LDL+ (acetylated low-density lipoprotein) colonies

(plating efficiency of 3%). In an in vivo human model, we have found that the neointima formed on the surface of left ventricular assist devices is colonized with AC133+VEGFR-2+ cells. These data suggest that circulating CD34+ cells expressing VEGFR-2 and AC133 constitute a phenotypically and functionally distinct population of circulating endothelial cells that may play a role in neo-angiogenesis.

DESCRIPTORS:
MAJOR CONCEPTS: Blood and Lymphatics (Transport and Circulation); Cardiovascular System (Transport and Circulation)
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: human (Hominidae)--normal subjects
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Primates; Vertebrates
CHEMICALS & BIOCHEMICALS: AC-133 hematopoietic stem cell marker protein --circulating CD34-positive blood cell expression, functional endothelial cell precursor population identification; vascular endothelial growth factor receptor 2--circulating CD34-positive blood cell expression, functional endothelial cell precursor population identification

CONCEPT CODES:
14504 Cardiovascular System-Physiology and Biochemistry
15002 Blood, Blood-Forming Organs and Body Fluids-Blood and Lymph Studies

BIOSYSTEMATIC CODES:
86215 Hominidae

5/9/3 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09019283 BIOSIS NO.: 199497027653
Identification and characterization of hematopoietic stem cells from the yolk sac of the early mouse embryo.
AUTHOR: Huang Hua; Auerbach Robert
AUTHOR ADDRESS: Cent. Dev. Biol., Univ. Wisconsin, Madison, WI 53706**USA
JOURNAL: Proceedings of the National Academy of Sciences of the United States of America 90 (21):p10110-10114 1993
ISSN: 0027-8424
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The yolk sac is the first site of hematopoiesis on the mammalian embryo. However, little is known about the initial *stem* *cells* in the yolk sac. We have *isolated* hematopoietic *stem* *cells* from early mouse embryonic yolk sac by using a sequential protocol of nonadherence to plastic, density gradient centrifugation, immunocytoadherence, and cell sorting. *Isolated*, *nonadherent*, density lt 1.077 g /cm-3, surface antigen AA4.1+, wheat germ agglutinin bright (WGA-bright) cells give rise to multiple lineages, including T cells, B cells, and myeloid cells, as detected by using fetal thymus organ culture, S17 stromal feeder layers, or methylcellulose culture colony-forming cells, respectively. AA4.1+, WGA-bright cells expressed high levels of heat-stable antigen (HSA) and CD45 (Ly-5) but did not significantly express major histocompatibility complex antigens, CD44, or Sca-1. Peak *stem* *cell* concentration is reached by day 11, before *stem* *cells* can be found in the *liver*, omentum, or thymus. In vivo long-term reconstitution of lethally irradiated mice was effected by as few as 720 AA4.1+, WGA-bright yolk sac cells, but it required addition of a subset of bone marrow cells capable of providing immediate (short-term) radiation protection. Yolk sac donor-derived T cells, B cells, and macrophages were readily identified 6 months after transfer of yolk sac-derived *stem* *cells*. We suggest that, because of their cell surface phenotype as well as their capacity to differentiate in vitro and in vivo, the cells *isolated* from the mouse embryonic yolk sac may include the most primitive hematopoietic pluripotential *stem* *cells* yet identified.

DESCRIPTORS:

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  MAJOR CONCEPTS: Blood and Lymphatics (Transport and Circulation); Cell
    Biology; Development; Genetics
  BIOSYSTEMATIC NAMES: Muridae--Rodentia, Mammalia, Vertebrata, Chordata,
    Animalia
  ORGANISMS: Muridae (Muridae)
  BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; chordates; mammals;
    nonhuman vertebrates; nonhuman mammals; rodents; vertebrates
  MISCELLANEOUS TERMS:   DIFFERENTIATION; PHENOTYPE
CONCEPT CODES:
  02506   Cytology and Cytochemistry-Animal
  03506   Genetics and Cytogenetics-Animal
  15004   Blood, Blood-Forming Organs and Body Fluids-Blood Cell Studies
  15008   Blood, Blood-Forming Organs and Body Fluids-Lymphatic Tissue and
             Reticuloendothelial System
  25502   Developmental Biology-Embryology-General and Descriptive
  25508   Developmental Biology-Embryology-Morphogenesis, General
  15001   Blood, Blood-Forming Organs and Body Fluids-General; Methods
BIOSYSTEMATIC CODES:
  86375   Muridae
?ds

Set     Items   Description
S1     101833   STEM(W)CELL?
S2       6556   S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
S3         50   S2 AND (NON-ADHERENT OR NONADHERENT)
S4          5   S3 AND LIVER
S5          3   RD (unique items)
?s liver(s)stem(w)cell?
Processing
         1062254  LIVER
          235081  STEM
         5938492  CELL?
      S6    3291  LIVER(S)STEM(W)CELL?
?s s6 and (non-adherent or nonadherent)
            3291  S6
              64  NON-ADHERENT
            5456  NONADHERENT
      S7      14  S6 AND (NON-ADHERENT OR NONADHERENT)
?rd
...completed examining records
      S8       7  RD (unique items)
?t/3/all

 8/3/1     (Item 1 from file: 71)
DIALOG(R)File  71:ELSEVIER BIOBASE
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01351979        2000026887
Expression of VEGFR-2 and AC133 by circulating human CD34sup + cells
 identifies a population of functional endothelial precursors
Peichev M.; Naiyer A.J.; Pereira D.; Zhu Z.; Lane W.J.; Williams M.; Oz
M.C.; Hicklin D.J.; Witte L.; Moore M.A.S.; Rafii S.
ADDRESS: S. Rafii, Weill Med. Coll. of Cornell Univ., Hematology-Oncology
         Division, 1300 York Ave, New York, NY 10021, United States
EMAIL: srafii@mail.med.cornell.edu
Journal: Blood, 95/3 (952-958), 2000, United States
PUBLICATION DATE: February 1, 2000
CODEN: BLOOA
ISSN: 0006-4971
DOCUMENT TYPE: Article
LANGUAGES: English       SUMMARY LANGUAGES: English
NO. OF REFERENCES: 29


 8/3/2     (Item 2 from file: 71)
DIALOG(R)File  71:ELSEVIER BIOBASE
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00252271        95050238
Fetal liver generates low CD4 hematopoietic cells in murine stromal
 cultures
```

Tocci A.; Rezzoug F.; Wahbi K.; Touraine J.-L.
ADDRESS: Dr. J.-L. Touraine, Transplantation/Clin. Immunol. Unit, INSERM U 80, Hopital Ed. Herriot, 5, Place d'Arsonval, 69437 Lyon, Cedex 03 , France
Journal: Blood, 85/6 (1463-1471), 1995, United States
PUBLICATION DATE: 19950000
CODEN: BLOOA
ISSN: 0006-4971
DOCUMENT TYPE: Article
LANGUAGES: English SUMMARY LANGUAGES: English

8/3/3 (Item 3 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

00007441 94013984
Insulin-like growth factor-1 potentiates expansion of interleukin-7-dependent pro-B cells
Gibson L.F.; Piktel D.; Landreth K.S.
ADDRESS: Dr. L.F. Gibson, Mary Babb Randolph Cancer Center, West Virginia Univ. Health Sci. Ctr., Morgantown, WV 26506, United States
Journal: Blood, 82/10 (3005-3011), 1993, United States
PUBLICATION DATE: 19930000
CODEN: BLOOA
ISSN: 0006-4971
DOCUMENT TYPE: Article
LANGUAGES: English SUMMARY LANGUAGES: English

8/3/4 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12410903 BIOSIS NO.: 200000164405
Expression of VEGFR-2 and AC133 by circulating human CD34+ cells identifies a population of functional endothelial precursors.
AUTHOR: Peichev Mario; Naiyer Afzal J; Pereira Daniel; Zhu Zhenping; Lane William J; Williams Mathew; Oz Mehmet C; Hicklin Daniel J; Witte Larry; Moore Malcolm AS; Rafii Shahin(a)
AUTHOR ADDRESS: (a)Hematology-Oncology Division, Weill Medical College of Cornell University, 1300 York Ave, Room C-606, New York, NY, 10021**USA
JOURNAL: Blood. 95 (3):p952-958 Feb. 1, 2000
ISSN: 0006-4971
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

8/3/5 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

09019283 BIOSIS NO.: 199497027653
Identification and characterization of hematopoietic stem cells from the yolk sac of the early mouse embryo.
AUTHOR: Huang Hua; Auerbach Robert
AUTHOR ADDRESS: Cent. Dev. Biol., Univ. Wisconsin, Madison, WI 53706**USA
JOURNAL: Proceedings of the National Academy of Sciences of the United States of America 90 (21):p10110-10114 1993
ISSN: 0027-8424
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

8/3/6 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

05170987 BIOSIS NO.: 000082011608
BIOCHEMICAL AND PHENOTYPIC CHARACTERIZATION OF HUMAN BASOPHILIC CELLS
 DERIVED FROM DISPERSED FETAL LIVER WITH MURINE T CELL FACTORS
AUTHOR: SELDIN D C; CAULFIELD J P; HEIN A; OSATHANONDH R; NABEL G;
  SCHLOSSMAN S F; STEVENS R L; AUSTEN K F
AUTHOR ADDRESS: DEPARTMENT OF MEDICINE, HARVARD MEDICAL SCHOOL, DANA-FARBER
  CANCER INSTITUTE, BOSTON, MASS. 02115.
JOURNAL: J IMMUNOL 136 (6). 1986. 2222-2230. 1986
FULL JOURNAL NAME: Journal of Immunology
CODEN: JOIMA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

 8/3/7   (Item 4 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
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04000584 BIOSIS NO.: 000076086151
REGULATION OF MURINE GRANULOCYTE MACROPHAGE PROGENITOR CELL AND HEMOPOIETIC
 STEM *CELL* PROLIFERATION BY FACTORS PRODUCED IN HUMAN FETAL *LIVER*
AUTHOR: CORK M J; WRIGHT E G; RICHES A C
AUTHOR ADDRESS: CLINICAL SCHOOL, ADDENBROOK'S HOSPITAL, HILLS ROAD,
  CAMBRIDGE CB2 2QQ, UK.
JOURNAL: LEUK RES 6 (4). 1982. 553-566. 1982
FULL JOURNAL NAME: Leukemia Research
CODEN: LERED
RECORD TYPE: Abstract
LANGUAGE: ENGLISH
?s adult(s)stem(w)cell?
Processing
         2762459 ADULT
          235081 STEM
         5938492 CELL?
      S9   4709 ADULT(S)STEM(W)CELL?
?s s9 and (isolat? or enrich or prepar?)
            4709 S9
         1801941 ISOLAT?
            2868 ENRICH
          847227 PREPAR?
     S10   871 S9 AND (ISOLAT? OR ENRICH OR PREPAR?)
?s s10 and (non-adherent or nonadherent)
             871 S10
              64 NON-ADHERENT
            5456 NONADHERENT
     S11   5 S10 AND (NON-ADHERENT OR NONADHERENT)
?rd
...completed examining records
     S12   3 RD (unique items)
?t/3/all

 12/3/1   (Item 1 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE
(c) 2001 Elsevier Science B.V. All rts. reserv.

01030588   1998275193
Enhanced retroviral transduction of 5-fluorouracil-resistant human bone
 marrow (stem) cells using a genetically modified packaging cell line
Povey J.; Weeratunge N.; Marden C.; Sehgal A.; Thrasher A.; Casimir C.
ADDRESS: Dr. C. Casimir, Department of Haematology, Imperial College School
         of Medicine, St Mary's Campus, Norfolk Place, London W2 1PG,
         United Kingdom
EMAIL: c.casimir@ic.ac.uk
Journal: Blood, 92/11 (4080-4089), 1998, United States
PUBLICATION DATE: December 1, 1998
CODEN: BLOOA
ISSN: 0006-4971
DOCUMENT TYPE: Article
LANGUAGES: English   SUMMARY LANGUAGES: English
NO. OF REFERENCES: 39

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 12/3/2     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
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02715730   BIOSIS NO.: 000068026320
CHARACTERIZATION OF A PRIMITIVE ERYTHROPOIETIC PROGENITOR FOUND IN MOUSE
 MARROW BEFORE AND AFTER SEVERAL WEEKS IN CULTURE
AUTHOR: HUMPHRIES R K; EAVES A C; EAVES C J
AUTHOR ADDRESS: MED. BIOPHYS. UNIT, B.C. CANCER RES. CENT., 601 W. 10TH
  AVE., VANCOUVER, B.C. V52 1L3, CAN.
JOURNAL: BLOOD 53 (4). 1979. 746-763. 1979
FULL JOURNAL NAME: Blood
CODEN: BLOOA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH


 12/3/3     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2001 Dialog Corporation. All rts. reserv.

07146796   94033568   PMID: 7693049
 Hematopoietic  progenitor  cells  from  patients  with  adult  T-cell
leukemia-lymphoma are not infected with human T-cell leukemia virus type 1.
  Nagafuji  K; Harada M; Teshima T; Eto T; Takamatsu Y; Okamura T; Murakawa
M; Akashi K; Niho Y
  First  Department  of  Internal  Medicine,  Faculty  of  Medicine, Kyushu
University, Fukuoka, Japan.
  Blood (UNITED STATES)   Nov 1 1993,  82  (9)  p2823-8,  ISSN 0006-4971
Journal Code: A8G
  Languages: ENGLISH
  Document type: Journal Article
  Record type: Completed
?ds

Set     Items   Description
S1     101833   STEM(W)CELL?
S2       6556   S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
S3         50   S2 AND (NON-ADHERENT OR NONADHERENT)
S4          5   S3 AND LIVER
S5          3   RD (unique items)
S6       3291   LIVER(S)STEM(W)CELL?
S7         14   S6 AND (NON-ADHERENT OR NONADHERENT)
S8          7   RD (unique items)
S9       4709   ADULT(S)STEM(W)CELL?
S10       871   S9 AND (ISOLAT? OR ENRICH OR PREPAR?)
S11         5   S10 AND (NON-ADHERENT OR NONADHERENT)
S12         3   RD (unique items)
?s s10
     S13     871  S10
?s s10 and dt=review
             871  S10
         1061998  DT=REVIEW
     S14      54  S10 AND DT=REVIEW
?rd
...examined 50 records  (50)
...completed examining records
     S15      44  RD (unique items)
?t/9/1-10

 15/9/1     (Item 1 from file: 71)
DIALOG(R)File  71:ELSEVIER BIOBASE
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01718602        2001093587
Apoptosis in oral mucosa: Lessons from the crypt. A commentary
Potten C.S.
ADDRESS: C.S. Potten, CRC Epithelial Biology Department, Paterson Inst. for
         Cancer Research, Christie Hospital NHS Trust, Wilmslow Road,
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EMAIL: cpotten@picr.man.ac.uk
Journal: Oral Diseases, 7/2 (81-85), 2001, United Kingdom
CODEN: ORDIF
ISSN: 1354-523X
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 12

The programmed removal of individual *isolated* cells from a tissue during development, in the adult steady state, and in pathological abnormalities, is an important regulated process that counter-balances the cells produced due to cell division, and compliments differentiation in the overall tissue homeostatic mechanisms. In stratified epithelium, apoptosis can sometimes be difficult to identify and end-labelling techniques such as TUNEL are difficult to optimise and validate. In the columnar epithelium of the small intestine, apoptosis is easy to recognise by virtue of the morphological changes seen in dying cells in routine paraffin sections. The dying cells fragment and the apoptotic fragments can be reliably counted. Because of the precise cell positional relationship between hierarchical status in the lineage and cell position in the tissue, the cell death can be related to the hierarchical status of the dying cells. In the normal steady state in healthy epithelium a small proportion of *stem* *cells* are constantly dying. This p53-independent apoptosis is interpreted as part of the homeostatic regulation of *stem* *cell* numbers. After exposure to low levels of genotoxic agents, such as radiation, some *stem* *cells* in this tissue are very susceptible to apoptosis induction in a p53-dependent fashion. This has been interpreted to be a genome protective mechanism that accounts at least in part for the unexpected low incidence of cancer in this rapidly proliferating, large mass of tissue within the gastrointestinal tract.

DESCRIPTORS:
Apoptosis; Tongue epithelium; Small intestine; Stem cells; Cell lineages

CLASSIFICATION CODE AND DESCRIPTION:
89.2.5.4 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cellular Senescence and Death / Death (apoptosis)

15/9/2 (Item 2 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01624327 2000284177
The potential of bone marrow as a source of neural precursors
Sanchez-Ramos J.; Song S.; Daadi M.; Sanberg P.
ADDRESS: Dr. J. Sanchez-Ramos, Dept. of Neurology, USF (MDC 55), 12901 Bruce B. Downs Blvd, Tampa, FL 33620, United States
EMAIL: Jsramos@com1.med.usf.edu
Journal: NeuroScience News, 3/6 (32-43), 2000, United Kingdom
CODEN: NUNEF
ISSN: 1027-6599
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 57

Research on neural *stem* *cells* *isolated* from embryonic, fetal and *adult* tissues has engendered novel perspectives regarding the identity, origin and full therapeutic potential of tissue-specific *stem* *cells*. Review of the similarities and differences between the *stem* *cells* that give rise to nervous system (neuropoiesis) and those that generate the various blood cell lineages (hematopoiesis) provides new insights into the process of neuronal differentiation. In this review, we compare hematopoiesis and neuropoiesis from several perspectives starting with ontogenetic considerations and ending with discussion of the cellular interactions of marrow-derived cells with neural cells in vitro and in vivo.

DESCRIPTORS:
Stem cells; Neural stem cells; Bone marrow stromal cells; Neuropoiesis hematopoiesis; Neuronal differentiation

CLASSIFICATION CODE AND DESCRIPTION:
88.1.2.3 - NEUROSCIENCE / CELLULAR NEUROSCIENCE / Nervous System Development / Brain and spinal cord
88.13 - NEUROSCIENCE / GENERAL CONCEPTS
89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell Growth / Stem cells
89.8.9.3 - CELL AND DEVELOPMENTAL BIOLOGY / DEVELOPMENT (BY TISSUE AND ORGAN SYSTEMS) / Nervous System / Brain and spinal cord (CNS)
89.14 - CELL AND DEVELOPMENTAL BIOLOGY / GENERAL CONCEPTS

15/9/3 (Item 3 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01546375 2000209633
Isolation of pluripotent embryonic *stem* *cells* from reprogrammed *adult* mouse somatic cell nuclei
Munsie M.J.; Michalska A.E.; O'Brien C.M.; Trounson A.O.; Pera M.F.; Mountford P.S.
ADDRESS: P.S. Mountford, Monash Inst. of Repro. and Devmt., Monash University, 27-31 Wright Street, Clayton, Vic. 3168, Australia
EMAIL: peter.mountford@stemcellsciences.com.au
Journal: Current Biology, 10/16 (989-992), 2000, United Kingdom
PUBLICATION DATE: August 24, 2000
CODEN: CUBLE
ISSN: 0960-9822
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 15

Pluripotent human *stem* *cells* *isolated* from early embryos represent a potentially unlimited source of many different cell types for cell-based gene and tissue therapies [1-3]. Nevertheless, if the full potential of cell lines derived from donor embryos is to be realised, the problem of donor-recipient tissue matching needs to be overcome. One approach, which avoids the problem of transplant rejection, would be to establish *stem* *cell* lines from the patient's own cells through therapeutic cloning [3,4]. Recent studies have shown that it is possible to transfer the nucleus from an *adult* somatic cell to an unfertilised oocyte that is devoid of maternal chromosomes, and achieve embryonic development under the control of the transferred nucleus [5-7]. *Stem* *cells* *isolated* from such a cloned embryo would be genetically identical to the patient and pose no risk of immune rejection. Here, we report the *isolation* of pluripotent murine *stem* *cells* from reprogrammed *adult* somatic cell nuclei. Embryos were generated by direct injection of mechanically *isolated* cumulus cell nuclei into mature oocytes. Embryonic stem (ES) cells *isolated* from cumulus-cell-derived blastocysts displayed the characteristic morphology and marker expression of conventional ES cells and underwent extensive differentiation into all three embryonic germ layers (endoderm, mesoderm and ectoderm) in tumours and in chimaeric foetuses and pups. The ES cells were also shown to differentiate readily into neurons and muscle in culture. This study shows that pluripotent *stem* *cells* can be derived from nuclei of terminally differentiated *adult* somatic cells and offers a model system for the development of therapies that rely on autologous, human pluripotent *stem* *cells*.

CLASSIFICATION CODE AND DESCRIPTION:
89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell Growth / Stem cells
89.9.1.1 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT / Determination, Pattern Formation and Morphogenesis / Mammals
89.9.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT / Developmental Genetics / Mammals
89.10.1 - CELL AND DEVELOPMENTAL BIOLOGY / EMBRYONIC DEVELOPMENT (BY ORGANISM) / Mammals
84.5.7.5 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Genetics and Development / Mammals
84.5.8 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Somatic and Fused Cell Genetics

84.5.35 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Rodent Genetics

15/9/4 (Item 4 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01393505 2000069436
Stem cell therapy and gene transfer for regeneration
Asahara T.; Kalka C.; Isner J.M.
ADDRESS: J.M. Isner, St Elizabeth's Medical Center, 736 Cambridge Street, Boston, MA 02135, United States
Journal: Gene Therapy, 7/6 (451-457), 2000, United Kingdom
CODEN: GETHE
ISSN: 0969-7128
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 62

The committed stem and progenitor cells have been recently *isolated* from various adult tissues including hematopoietic *stem* *cell*, neural *stem* *cell*, mesenchymal *stem* *cell* and endothelial progenitor cell. These *adult* *stem* *cells* have several advantages as compared with embryonic *stem* *cells* as their practical therapeutic application for tissue regeneration. In this review, we discuss the promising gene therapy application of *adult* stem and progenitor cells in terms of modifying *stem* *cell* potency, altering organ property, accelerating regeneration and forming expressional organization.

DESCRIPTORS:
Stem cell; Gene therapy; Regeneration; Progenitor cell; Differentiation

CLASSIFICATION CODE AND DESCRIPTION:
84.1.13.5 - GENETICS AND MOLECULAR BIOLOGY / MOLECULAR GENETICS / Molecular Biology Techniques / Gene transfer
84.5.11.5 - GENETICS AND MOLECULAR BIOLOGY / EUKARYOTIC GENETICS / Medical Genetics / Gene therapy
84.6.1 - GENETICS AND MOLECULAR BIOLOGY / GENERAL CONCEPTS / Reviews

15/9/5 (Item 5 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01369579 2000045125
A new look at the origin, function, and 'stem-cell' status of muscle satellite cells
Seale P.; Rudnickit M.A.
ADDRESS: M.A. Rudnickit, Department of Biology, Inst. for Molec. Biol./Biotechnology, McMaster University, 1280 Main Street West, Hamilton, Ont. L8S 4K1, Canada
EMAIL: rudnicki@mcmaster.ca
Journal: Developmental Biology, 218/2 (115-124), 2000, United States
PUBLICATION DATE: February 15, 2000
CODEN: DEBIA
ISSN: 0012-1606
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 80

Muscle satellite cells have long been considered a distinct myogenic lineage responsible for postnatal growth, repair, and maintenance of skeletal muscle. Recent studies in mice, however, have revealed the potential for highly purified hematopoietic *stem* *cells* from bone marrow to participate in muscle regeneration. Perhaps more significantly, a population of putative *stem* *cells* *isolated* directly from skeletal muscle efficiently reconstitutes the hematopoietic compartment and participates in muscle regeneration following intravenous injection in mice. The plasticity of muscle *stem* *cells* has raised important questions regarding the relationship between the muscle- derived *stem*

cells and the skeletal muscle satellite cells. Furthermore, the ability of hematopoietic cells to undergo myogenesis has prompted new investigations into the embryonic origin of satellite cells. Recent developmental studies suggest that a population of satellite cells is derived from progenitors in the embryonic vasculature. Taken together, these studies provide the first evidence that pluripotential *stem* *cells* are present within *adult* skeletal muscle. Tissue-specific *stem* *cells*, including satellite cells, may share a common embryonic origin and possess the capacity to activate diverse genetic programs in response to environmental stimuli. Manipulation of such tissue-specific *stem* *cells* may eventually revolutionize therapies for degenerative diseases, including muscular dystrophy. (C) 2000 Academic Press.

DESCRIPTORS:
Satellite cells; Myogenic stem cells; Muscle regeneration; Myf5; MyoD

CLASSIFICATION CODE AND DESCRIPTION:
89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell Growth / Stem cells
89.5.1.3 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Muscle cells

15/9/6 (Item 6 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01193617 1999166769
New prospects for human stem-cell therapy in the nervous system
Svendsen C.N.; Smith A.G.
ADDRESS: C.N. Svendsen, MRC Cambridge Ctr. for Brain Repair, University of Cambridge, Cambridge CB2 2PY, United Kingdom
Journal: Trends in Neurosciences, 22/8 (357-364), 1999, United Kingdom
CODEN: TNSCD
ISSN: 0166-2236
PUBLISHER ITEM IDENTIFIER: S0166223699014289
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 86

It would be of enormous benefit if human neural tissue could be generated in vitro as this would allow screening for neuroactive compounds, and provide a source of tissue for testing cellular and gene therapies for CNS disorders. It is now well established that pluripotent embryonic *stem* *cells* (ES cells) from the mouse can be propagated in culture and differentiated into a range of tissues, including neuronal and glial cells. In other studies, more-restricted neural *stem* *cells* have been *isolated* from both the developing and *adult* rodent brain. Current reports now describe similar pluripotent and neural *stem* *cells* cultured from human embryos. While the exact nature of these cells continues to be explored, they can be grown for extended periods of time while retaining the capacity for neuronal and glial differentiation. In some cases, they have been shown to integrate into the developing or damaged *adult* brain. This article reviews their biology, with a focus on the possible links between ES-cell and neural *stem*-*cell* technologies, and the strategies used to *isolate* and expand defined cell populations.

CLASSIFICATION CODE AND DESCRIPTION:
88.1.5 - NEUROSCIENCE / CELLULAR NEUROSCIENCE / Nerve and Glial Cell Biology
89.3.1.4 - CELL AND DEVELOPMENTAL BIOLOGY / CYTOSKELETON AND CELL MOTILITY / Cytoskeleton / Intermediate filaments
89.5.1.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Nervous system cells
89.5.3 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Differentiation

15/9/7 (Item 7 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

00958525 1998205114
Cell-based tissue engineering therapies: The influence of whole body physiology
Haynesworth S.E.; Reuben D.; Caplan A.I.
ADDRESS: S.E. Haynesworth, Department of Biology, Skeletal Research Center, Case Western Reserve University, Cleveland, OH 44106, United States
Journal: Advanced Drug Delivery Reviews, 33/1-2 (3-14), 1998, Netherlands
CODEN: ADDRE
ISSN: 0169-409X
PUBLISHER ITEM IDENTIFIER: S0169409X98000167
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 46

A technology has been developed to *isolate* a developmentally and phenotypically homogeneous population of pluripotent human mesenchymal *stem* *cells* (hMSCs) from *adult* bone marrow and mitotically expand these cells in culture. These hMSCs have osteoblasts as one of their potential developmental end-stage phenotypes, and, in addition to their osteogenic potential, these hMSCs synthesize and secrete a variety of macromolecules that are known regulators of osteoclast differentiation and activity. In this review, data are presented that demonstrate the phenotypic and developmental homogeneity of the cells in hMSC cultures, as well as their ability to differentiate along multiple phenotypic pathways and serve as regulatory cells for hematopoietic and bone-resorbing cells. In addition, a logic and preliminary data are presented that support the use of hMSCs in the prevention and treatment of age-related and postmenopausal osteoporosis. Since hMSC differentiation and phenotypic expression are controlled by regulatory molecules synthesized and secreted by a variety of local and systemic mechanisms, the issue of whole organism physiology is addressed in considering tissue engineering logics.

DESCRIPTORS:
Mesenchymal stem cell; Osteoporosis; Mesengenesis; Hematopoiesis; Bone formation; Bone resorption; Cytokines

CLASSIFICATION CODE AND DESCRIPTION:
99 - General

15/9/8 (Item 8 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

00904796 1998144493
The regulation and biological activity of interleukin 12
Lee S.M.; Suen Y.; Qian J.; Knoppel E.; Cairo M.S.
ADDRESS: M.S. Cairo, Division of Hematology-Oncology, Blood and Marrow Transplantation, Children's Hospital of Orange County, Orange, CA , United States
Journal: Leukemia and Lymphoma, 29/5-6 (427-438), 1998, United Kingdom
PUBLICATION DATE: 19980000
CODEN: LELYE
ISSN: 1042-8194
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 79

Interleukin 12 (IL-12) is a pleiotropic cytokine and mediates several biological activities on human T and natural killer (NK) cells, including induction of IFN-gamma production, enhancement of cell-mediated cytotoxicity and comitogenic effects on resting T-cells. The major cellular sources producing IL-12 are antigen-stimulated monocytes, macrophages, and B-cells *isolated* from peripheral blood mononuclear cells (PBMC). Our laboratory has investigated the regulation of IL-12 gene expression in both cord blood and *adult* PBMC, and the effects of IL-12 on induction of IFN-gamma production, NK, and lymphokine-activated killer (LAK) cytotoxicity. IL-12 mRNA expression and protein production in

LPS-stimulated cord blood MNC were 3-4 fold decreased when compared with *adult* PBMC. There were no differences between cord blood and *adult* PBMC in both basal levels of transcription or the degree of transcriptional activation of the IL-12 gene. Additionally, the half-life of IL-12 p40 mRNA was 3-fold lower in activated cord blood compared to *adult* PBMC. Exogenous IL-12 induced a significant increase of IFN-gamma from both cord and *adult* PBMC. Cord MNC has significantly reduced levels of NK activity, and IL-12 significantly enhanced cord blood NK cytotoxicity upto similar levels in *adult* PBMC. IL-12 also significantly enhanced cord blood NK and LAK activities against a broad range of neuroblastoma, leukemia, and lymphoma cell lines. Lower doses of IL-12 and IL-15 concomitantly generated either synergistic or additive effects on cord blood NK and LAK cytotoxicities. In light of the important biological functions of IL-12, reduced expression and production of IL-12 from activated cord blood may contribute to the immaturity of cord blood cellular immunity and contribute, in part, to decreased severe graft vs. host disease following unrelated cord blood *stem* *cell* transplantation. IL-12 enhancement of IFN-gamma, NK, and LAK activity in activated cord blood MNC upto comparable levels in *adult* PBMC suggests that exogenous IL-12 stimulation can compensate for the immaturity in cord blood cellular immunity. These characteristics of IL-12 biological activity strongly suggest its potential usefulness in future cancer immunotherapy.

DESCRIPTORS:
Regulation; Biological activity; Interleukin 12

CLASSIFICATION CODE AND DESCRIPTION:
86.5.2 - IMMUNOLOGY AND INFECTIOUS DISEASES / HUMORAL MEDIATORS OF IMMUNE RESPONSE / Interleukin

15/9/9 (Item 9 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

00821590 1998058631
Role of morphogenetic proteins in skeletal tissue engineering and regeneration
Reddi A.H.
ADDRESS: A.H. Reddi, Ctr. for Tissue Regeneration/Repair, Department of Orthopedic Surgery, University of California, Sacramento, CA 95817 , United States
EMAIL: ahreddi@ucdavis.edu
Journal: Nature Biotechnology, 16/3 (247-252), 1998, United States
PUBLICATION DATE: 19980000
CODEN: NABIF
ISSN: 1087-0156
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 66

Morphogenesis is the developmental cascade of pattern formation and body plan establishment, culminating in the adult form. It has formed the basis for the emerging discipline of tissue engineering, which uses principles of molecular developmental biology and morphogenesis gleamed through studies on inductive signals, responding *stem* *cells*, and the extracellular matrix to design end construct spare parts that restore function to the human body. Among the many organs in the body, bone has considerable powers for regeneration and is prototype model for tissue engineering. Implantation of demineralized bone matrix into subcutaneous sites results in local bone induction. This model mimics sequential limb morphogenesis and has permitted the *isolation* of bone morphogens, such as bone morphogenetic proteins (BMPs), from demineralized *adult* bone matrix. BMPs initiate, promote, and maintain chondrogenesis and osteogenesis, but are also involved in the morphogenesis of organs other than bone. The symbiosis of the mechanisms underlying bone induction and differentiation is critical for tissue engineering and is governed by both biomechanics (physical forces) and context (microenvironment/extracellular matrix), which can be duplicated by biomimetic biomaterials such as collagens, hydroxyapatite, proteoglycans, and cell adhesion glycoproteins, including fibronectins and laminin. Rules of tissue architecture elucidated in bone morphogenesis may

provide insights into tissue engineering and be universally applicable for all organs/tissues, including bones and joints.

DESCRIPTORS:
Biomimetic biomaterials; Bone morphogenetic proteins, extracellular matrix; Growth factors; Inductive signals; Stem cells
CLASSIFICATION CODE AND DESCRIPTION:
89.9.1 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT / Determination, Pattern Formation and Morphogenesis
89.9.2 - CELL AND DEVELOPMENTAL BIOLOGY / MECHANISMS OF DEVELOPMENT / Regeneration
89.14 - CELL AND DEVELOPMENTAL BIOLOGY / GENERAL CONCEPTS

15/9/10 (Item 10 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

00778246 1998014513
Regulation of hematopoiesis by microvascular endothelium
Rafii S.; Mohle R.; Shapiro F.; Frey B.M.; Moore M.A.S.
ADDRESS: S. Rafii, Division of Hematology-Oncology, Cornell University Medical College, 1300 York Avenue, New York, NY 10021, United States
Journal: Leukemia and Lymphoma, 27/5-6 (375-386), 1997, United Kingdom
PUBLICATION DATE: 19970000
CODEN: LELYE
ISSN: 1042-8194
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 86

The bone marrow microenvironment is a complex three dimensional structure where hematopoietic *stem* *cells* proliferate, mature, migrate into the sinusoidal space, and enter the circulation in an exquisitely regulated fashion. Stromal cells within the BM microenvironment provide a suitable environment for self-renewal, proliferation and differentiation of hematopoietic *stem* *cells*. Within the hematopoietic microenvironment, whether it is embryonic yolk sac, fetal liver, or *adult* bone marrow, microvascular endothelium not only acts as a gatekeeper controlling the trafficking and homing of hematopoietic progenitors, but also provides cellular contact and secretes cytokines that allows for the preservation of the steady state hematopoiesis. Recently, homogenous monolayers of bone marrow endothelial cells (BMEC) have been *isolated* and cultivated in tissue culture. Long term coculture studies have shown that BMEC monolayers are unique type of endothelium and can support long-term proliferation of hematopoietic progenitor cells particularly megakaryocytic and myeloid progenitor cells by constitutive elaboration of lineage-specific cytokines such as G-CSF, GM-CSF, M-CSF, Kit-ligand, IL6, FLK-2 ligand, and leukemia inhibitory factor. Direct cellular contact between hematopoietic progenitor cells and BMEC monolayers through specific adhesion molecules including beta1, beta2 integrins and selectins play a critical role in trafficking and possibly proliferation of hematopoietic *stem* *cells*. Dysfunction of microvascular endothelial cells within the hematopoietic microenvironment may result in *stem* *cell* disorders and progression to aplastic anemias, and contribute to graft failure during bone marrow transplantation. Further studies on the role of microvascular endothelium in the regulation of hematopoietic *stem* *cell* homing and proliferation may enhance our understanding of the pathophysiology of *stem* *cell* and leukemic disorders.
DESCRIPTORS:
Hematopoiesis; Microvascular endothelium; Regulation

CLASSIFICATION CODE AND DESCRIPTION:
89.8.3.2 - CELL AND DEVELOPMENTAL BIOLOGY / DEVELOPMENT (BY TISSUE AND ORGAN SYSTEMS) / Circulatory System / Blood (including haematopoiesis)
89.2.3.1 - CELL AND DEVELOPMENTAL BIOLOGY / CELL GROWTH AND DIVISION / Cell Growth / Stem cells
89.5.1.7 - CELL AND DEVELOPMENTAL BIOLOGY / CELL TYPES AND BIOLOGY / Cell Types / Epithelial and endothelial cells
?s adult(w)stem(w)cell?

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Processing
         2762459  ADULT
          235081  STEM
         5938492  CELL?
     S16      83  ADULT(W)STEM(W)CELL?
?s s16 and (difficult?(w)isolat?)
              83  S16
          278253  DIFFICULT?
         1801941  ISOLAT?
              29  DIFFICULT?(W)ISOLAT?
     S17       0  S16 AND (DIFFICULT?(W)ISOLAT?)
?s s16 and dt=review
              83  S16
         1061998  DT=REVIEW
     S18      17  S16 AND DT=REVIEW
?rd
...completed examining records
     S19      13  RD (unique items)
?t/3/all

 19/3/1     (Item 1 from file: 71)
DIALOG(R)File  71:ELSEVIER BIOBASE
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01771589        2001133092
Multilineage differentiation from human embryonic stem cell lines
Odorico J.S.; Kaufman D.S.; Thomson J.A.
ADDRESS: Dr. J.S. Odorico, Department of Surgery, University of Wisconsin
         Hospital, H4/756 Clinical Science Center, 600 Highland Ave.,
         Madison, WI 53792, United States
EMAIL: jon@tx.surgery.wisc.edu
Journal: Stem Cells, 19/3 (193-204), 2001, United States
CODEN: STCEE
ISSN: 1066-5099
DOCUMENT TYPE: *Review*
LANGUAGES: English       SUMMARY LANGUAGES: English
NO. OF REFERENCES: 84


 19/3/2     (Item 2 from file: 71)
DIALOG(R)File  71:ELSEVIER BIOBASE
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01601725        2000261574
Manipulation of pancreatic stem cells for cell replacement therapy
Peshavaria M.; Pang K.
ADDRESS: Dr. M. Peshavaria, Ontogeny, Inc., 45 Moulton Street, Cambridge,
         MA 02138-1118, United States
EMAIL: kpang@ontogeny.com
Journal: Diabetes Technology and Therapeutics, 2/3 (453-460), 2000, United
         States
CODEN: DTTHF
ISSN: 1520-9156
DOCUMENT TYPE: *Review*
LANGUAGES: English       SUMMARY LANGUAGES: English
NO. OF REFERENCES: 70


 19/3/3     (Item 3 from file: 71)
DIALOG(R)File  71:ELSEVIER BIOBASE
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01393505        2000069436
Stem cell therapy and gene transfer for regeneration
Asahara T.; Kalka C.; Isner J.M.
ADDRESS: J.M. Isner, St Elizabeth's Medical Center, 736 Cambridge Street,
         Boston, MA 02135, United States
Journal: Gene Therapy, 7/6 (451-457), 2000, United Kingdom
CODEN: GETHE
ISSN: 0969-7128
DOCUMENT TYPE: *Review*
```

LANGUAGES: English SUMMARY LANGUAGES: English
NO. OF REFERENCES: 62

19/3/4 (Item 4 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01381280 2000057117
Why stem cells?
Van der Kooy D.; Weiss S.
ADDRESS: D. Van der Kooy, Dept. Of Anatomy and Cell Biology, University of Toronto, Faculty of Medicine, Toronto, Ont. M5S 1A8, Canada
EMAIL: derek.van.der.kooy@utoronto.ca
Journal: Science, 287/5457,(1439-1441), 2000, United States
PUBLICATION DATE: February 25, 2000
CODEN: SCIEA
ISSN: 0036-8075
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English

19/3/5 (Item 5 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01381279 2000057116
Mammalian neural stem cells
Gage F.H.
ADDRESS: F.H. Gage, Salk Institute, Laboratory of Genetics, 10010 North Torrey Pines Road, San Diego, CA 92037, United States
EMAIL: gage@salk.edu
Journal: Science, 287/5457 (1433-1438), 2000, United States
PUBLICATION DATE: February 25, 2000
CODEN: SCIEA
ISSN: 0036-8075
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English

19/3/6 (Item 6 from file: 71)
DIALOG(R)File 71:ELSEVIER BIOBASE

01381277 2000057114
Out of eden: Stem cells and their niches
Watt F.M.; Hogan B.L.M.
ADDRESS: F.M. Watt, Keratinocyte Laboratory, Imperial Cancer Research Fund, 44 Lincoln's Inn Fields, London WC2A 3PX, United Kingdom
Journal: Science, 287/5457 (1427-1430), 2000, United States
PUBLICATION DATE: February 25, 2000
CODEN: SCIEA
ISSN: 0036-8075
DOCUMENT TYPE: *Review*
LANGUAGES: English SUMMARY LANGUAGES: English

19/3/7 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04406543 BIOSIS NO.: 000028039584
CULTURING HEPATOCYTES AND OTHER DIFFERENTIATED CELLS
AUTHOR: REID L M; JEFFERSON D M
AUTHOR ADDRESS: 601 CHANIN CANCER CENT., DEP. OF MOLECULAR PHARMACOL., ALBERT EINSTEIN COLL. OF MED., 1300 MORRIS PARK AVE., BOX, NEW YORK 10461.
JOURNAL: HEPATOLOGY (BALTIMORE) 4 (3). 1984. 548-559. 1984
FULL JOURNAL NAME: HEPATOLOGY (Baltimore)
CODEN: HPTLD
DOCUMENT TYPE: *Review*

RECORD TYPE: Citation
LANGUAGE: ENGLISH

19/3/8 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11352197 21113465 PMID: 11177611
Developmental potential of somatic stem cells in mammalian adults.
Magli MC; Levantini E; Giorgetti A
Institute of Mutagenesis and Differentiation, CNR--Area della Ricerca de S. Cataldo, Via G. Moruzzi, I, 56100 Pisa, Italy. c.magli@imd.pi.cnr.it
Journal of hematotherapy & stem cell research (United States) Dec 2000, 9 (6) p961-9, ISSN 1525-8165 Journal Code: DJX
Languages: ENGLISH
Document type: Journal Article; *Review*; Review, Tutorial
Record type: Completed

19/3/9 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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11204467 21181387 PMID: 11283751
A unified hypothesis on the lineage of neural stem cells.
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Languages: ENGLISH
Document type: Editorial; *Review*; Review, Tutorial
Record type: Completed

19/3/10 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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Languages: ENGLISH
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Record type: Completed

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Temple S

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Record type: Completed
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Set	Items	Description
S1	101833	STEM(W)CELL?
S2	6556	S1(S) (ISOLAT? OR PREPAR? OR ENRICH)
S3	50	S2 AND (NON-ADHERENT OR NONADHERENT)
S4	5	S3 AND LIVER
S5	3	RD (unique items)
S6	3291	LIVER(S)STEM(W)CELL?
S7	14	S6 AND (NON-ADHERENT OR NONADHERENT)
S8	7	RD (unique items)
S9	4709	ADULT(S)STEM(W)CELL?
S10	871	S9 AND (ISOLAT? OR ENRICH OR PREPAR?)
S11	5	S10 AND (NON-ADHERENT OR NONADHERENT)
S12	3	RD (unique items)
S13	871	S10
S14	54	S10 AND DT=REVIEW
S15	44	RD (unique items)
S16	83	ADULT(W)STEM(W)CELL?
S17	0	S16 AND (DIFFICULT?(W)ISOLAT?)
S18	17	S16 AND DT=REVIEW
S19	13	RD (unique items)

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$26.00 21 Types
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